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## PEOPLE-CENTRED APPROACHES TO WATER AND ENVIRONMENTAL SANITATION

## Urban development and livelihoods of the poor in Dhaka

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Urban services development can result in many improvements to the lives of city dwellers, but benefits are not always realised by everyone equally. This paper is based on field-based research undertaken in Bangladesh designed to understand the socio-economic impact of the Dhaka Urban Transport Project (DUTP) on the poor. Research focused on two components of the project: the exclusion of non-motorised vehicles from parts of Mirpur Road; and the construction of a flyover over the busy Mohakhali Junction. These initiatives have significantly impacted many groups including cycle-rickshaw drivers, hawkers, shopkeepers and road users. This paper draws heavily on qualitative data collected from (mostly poor) stakeholders. It shows how damaging some aspects of urban development can be, as well as the clear benefits for others. In the light of research findings the authors consider what could have been done to avoid, mitigate or compensate for adverse impact on the poor. The paper identifies the need for ensuring livelihoods are understood unprotected in urban development, and ends with recommendations for urban development planners, policy-makers and practitioners.

## Introduction

## The Dhaka Urban Transport Project

Congestion in Dhaka has been a growing problem during the last 15 years. In around 1992, the Government of Bangladesh completed a study called 'The Greater Dhaka Metropolitan Area Integrated Transport Study', funded by the United Nations Development Program. The study recommended an immediate action plan and a long-term strategy to improve transport infrastructure in the Greater Metropolitan area of Dhaka. In response to this, the Government sought assistance from the World Bank to help fund the Dhaka Urban Transport Project (DUTP). Now being implemented, project objectives include addressing urgent policy issues, infrastructure development, capacity building and resettlement of displaced people. Efficient urban management, cost recovery, community participation and involvement of the private sector were identified as the key tools for providing efficient, affordable and sustainable transport (Kazi 2003).

#### Research objectives

This research was based around the following research questions:

- 1. Who has been affected by the DUTP? Fieldwork particularly focused on poor stakeholders who had been adversely affected by the project.
- 2. How have people been affected? Researchers identified both positive and negative impacts. Attempts were made at determining the magnitude of impacts.
- 3. What could have been done and what has been learnt? The research team sought to determine the stakeholders' perspective on what could have been done to alleviate

negative impacts and also to develop conclusions and recommendations.

## Methodology

The Sustainable Livelihoods Approach was used as a framework for fieldwork. This approach enables the researcher to consider a livelihood in terms of: assets (financial, social, physical, human and natural); livelihood strategies; and interaction with rules, laws, culture and official bodies (e.g. police and government) (DFID 1999). Thus it is possible to develop a deep understanding of the dynamics, threats and opportunities that comprise a livelihood.

The main research method used was structured interviews with stakeholders. Focus group discussions were also found to be useful for determining group views and stimulating discussion. Interviews were undertaken on the streets, and group discussions in nearby public parks. The fieldwork team consisted of two women and one man.

Participants in research were asked number of specific and general questions about their livelihoods. No questionnaire was used. Instead, the researchers discussed a set of issues (e.g. 'How has income change as a result of the rickshaw ban?') decided on as a group during fieldwork planning. Discussions always began with open-ended questions, and more specific questions were used to elicit detailed information about time use, income and the various changes stakeholders experienced as a result of the transport project.

#### **Constraints**

The research was time-constrained to within a two-month period in 2003. As such, with a team of only three fieldworkers, there was a limit as to how much fieldwork could be



Figure 1. Mirpur Road without Rickshaws



Stakeholder	Individual interviewed	Focus group participants
Rickshaw driver	23	33
Rickshaw owner	1	-
Rickshaw mechanic	5	-
Cycle cart driver	-	31
Cycle van driver	3	18
Hawker	20	-
Bus company employees	4	-
Shopkeepers/employees	8	-
Road users (male/female)	30/30	-

Note: 'Rickshaw driver' is the term used in this paper to describe the person (invariably man) cycling a cycle rickshaw. In Dhaka these are known as 'rickshaw pullers'.

undertaken. It should however be noted that findings were very consistent among even the small groups in the problems they were reportedly facing.

## Fieldwork locations and stakeholders

Two contrasting fieldwork locations were chosen for this research, described in turn in this section.

## Mirpur Road

Until early 2003 rickshaws had been able to travel freely along, and cross, Mirpur Road (Figure 1). As part of the DUTP cycle-rickshaws and other non-motorised transport (e.g. cycle-carts used for transporting goods) were been banned from this stretch of road during the day. Specific locations, many kilometres apart, were designated as legal crossing points. This has impacted many individuals.

Table 1 summarises the stakeholder groups interviewed and the number of participants in focus group discussions. Mohakhali Junction

Mohakhali Junction was chosen because it is the site of of the ongoing construction of a large flyover (elevated road section), another component of the DUTP (Figure 2). The flyover is intended to take traffic over a busy junction and a railway crossing. Construction has caused serious traffic



Figure 2. Congestion around Mohakhali

Table 2. Mohakhali stakeholder interviews

Stakeholder	Individual interviewed	Focus group participants
Rickshaw driver	4	-
Rickshaw owner	1	-
Rickshaw mechanic	5	-
Market shopkeepers	-	21
Hawker	-	10

jams and affected the business of a number of stakeholders, most notably those working in a nearby market. The impacts of construction are understood to be relatively short-term, but given that construction will take a total of five years it was considered important to understand its effects on the poor.

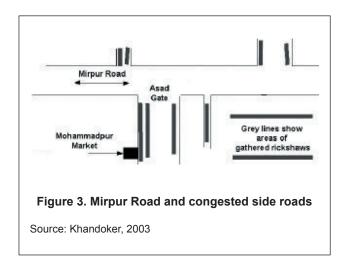
# **Key findings Mirpur Road**

## Rickshaw drivers

Without doubt the most significant group affected by the banning of non-motorised vehicles from this road are rickshaw drivers.

It is not known exactly how many rickshaw drivers work in Dhaka. Dhaka City Council has approximately 80,000 registered, but many estimates put the number at around 500,000 (Daily Star 2003). Most rickshaws are rented, to men, for at least two shifts per day. An individual will rarely work for more than one eight hour shift because the work is so exhausting. Thus, we can see that rickshaws provide livelihoods for at least one million individuals in Dhaka. If dependants are included, clearly the number of those potentially affected by changes in the transport sector is vast.

At any time before the ban was enforced, Mirpur Road would have contained many thousands of rickshaws either conveying passengers, or parked at the side of the road. Since the ban, most rickshaw drivers have simply moved to the narrow side roads on either side of the main road to seek work. For some time competition for rickshaw fares has been high throughout Dhaka - indeed the market is flooded with



rickshaws on most streets. Therefore, when a this rickshaws from Mirpur Road moved to the already-crowded side roads, competition (as well as congestion) became even fiercer. Figure 3 shows the location of the rickshaws.

Interviews with rickshaw drivers bear testimony to this: they say they are finding it difficult to find customers, and the number of people using rickshaws has also decreased as people turn to buses. Discussions reveal various other impacts of the ban:

Abul: 'After the ban, it has become very hard to make as much money as before. Before the ban I could earn Tk20-50 (US\$0.4-1) per day. Now I cannot rest and have to work harder to earn less money.' (Khandoker 2003).

Ashraful Islam: 'Because of the ban on Mirpur Road, we can't get long trips along the main road now. Short trips we used to make on Mirpur Road now take a long time through narrow, congested lanes. But we can't ask for any more money for the same journey!' (Khandoker 2003).

Other rickshaw drivers report higher repair bills because potholed roads were damaging their cycle rickshaws, and many mentioned being unable to put fares up despite having to take longer routes from a to b.

It is difficult to determine how many rickshaw drivers actually left the profession and sought work elsewhere, or rented rickshaws a significant distance away. Some rickshaw drivers felt that the number who had left was low and that most people had persevered in this job - the only job they know and are able to do.

## Women and children

This research revealed that the families of rickshaw drivers have also been affected by the transport project. Nargis Begum is married to rickshaw driver who used to work on the Mirpur Road. A drop in family income resulting from the ban caused her to make various changes. Rather than eating three times a day, the family now only eat twice in the morning and evening. Nowadays they cannot afford to eat fish which they used to eat quite regularly. In an attempt to raise the family income, one of the daughters was taken out of school and began working in any garment factory. This



Figure 4. Rickshaws gethering in side streets

work, from 8 a.m. to 10 p.m. daily, was so gruelling that the daughter could not continue. The family is considering returning to their village.

Another rickshaw driver called Mojammel described how his family had been affected by the rickshaw ban:

'Before the ban I sent Tk400 home every month, but now I can only manage Tk300. My life has become very hard day by day. I always wanted my children to be literate but now I may need to take my 10-year-old son out of education in order that he can work'.

#### Cycle cart drivers

Many shops and markets relied on carts to deliver their goods, as a form of cheap transport which was able to easily negotiate narrow access lanes. Carts have also been banned from the Mirpur Road, so many cart drivers have been forced out of work, or now deliver at night which can be risky in terms of crime.

## Rickshaw repairers and owners

A number of rickshaw repairers reported a drop in business, mainly because of shifts in location of rickshaws rather than an overall decrease in the number of rickshaws on the streets. Those located on areas from which rickshaws are now banned have suffered most. When asked about the overall numbers of rickshaws, one rickshaw repairer reported a change in rickshaw drivers rather than an overall drop in number: 'Many of the older men have left but there are always young men to replace them.'

Rickshaw owners, who rent often large numbers of rickshaws to drivers every day, could be said to have a vested interest in the continued high numbers of rickshaws in Dhaka. No owners were interviewed in the course of this research.

#### Hawker

Many hawkers who used to sell their wares along the main road have found their business has been seriously affected by the ban. One hawker called Mamun described the problem: 'Before the ban there were at least 25 hawker stalls along this stretch of road. Now things have changed. Our main customers were rickshaw drivers and their passengers but since the ban our business dropped. I am now the only one remaining. The only reason I can survive in this business is because all my competition has disappeared. Even with this, I have to work much longer hours to and the same as before'. A hawker called Farid said:

'Now I can only sell about 7 pieces of chicken in a day, but before I used to sell 100 everyday!' (Khandoker 2003).

Other hawkers relied on the traffic jams which characterised the main road before the rickshaw ban. Many of these have also been forced to move elsewhere because they could not survive the enormous competition as traffic jams became shorter.

#### Market stall owners and shopkeepers

Mohammadpur Market is located on one of the side roads of the main road, as shown in Figure 3. Research revealed that as a result of the rickshaw ban on the main road, many rickshaws now gather in front of the market and caused serious congestion. This has seriously affected the business of the market, and has tended to dissuade customers from shopping. In this instance again the poor are disproportionately affected: while wealthier shopkeepers can withstand a decrease in business, the poorer employees lose their jobs.

#### Road users

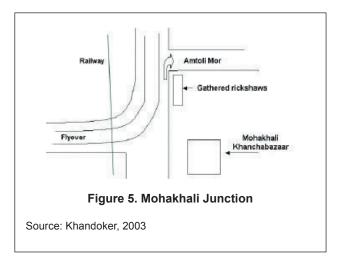
Of course, some people in Dhaka have benefited from the rickshaw ban. Car drivers report faster journey times, lower incidence of accidents and less time sat in traffic jams. There was resounding support for the ban from the car drivers interviewed.

Other road users have also been affected. Rickshaws provided affordable means of transport for many middle and lower-income the people. The rickshaw ban has resulted in many journeys being made either impracticable or very lengthy along congested small streets, so some pedestrians have been forced either to walk or catch buses. There are insufficient motorised rickshaws (referred to as 'Baby Taxis') in Dhaka to replace the rickshaws, and their fares are significantly higher.

Using alternative transport is not a significant problem for men - indeed some have benefited from the improved bus services introduced since the ban. However, many women expressed their unease at getting on public buses which are often crowded and can be threatening.

## Bus service employees

As a result of introduction of new buses, jobs have been created for drivers and ticket vendors. In Dhaka, many bus tickets are sold from booths at the side of the road. The research team estimated that up to 1000 new jobs may have been created as ticket vendors (based on total bus stops). It is not known how many new buses have been introduced.



## **Mohakhali Junction**

Fieldwork was undertaken here to understand the disruption caused by construction. Figure 5 shows the arrangement at the junction.

## Rickshaw drivers

In contrast to Mirpur Road, rickshaw drivers were not found to have been affected by the construction of the flyover at this junction. This is because they were banned from this road and junction some time ago, so are not impacted by the changes.

#### Road users

Bus passengers and car drivers now face serious delays when moving across this junction. A junction which used to take ten minutes to negotiate can now take up to an hour during rush hours. However, road users stand to benefit significantly from the construction once it is completed.

## Hawkers and shopkeepers

Traffic jams have caused problems for those selling wares around this junction. Prior to the construction work, large volumes of traffic moved through this junction providing many customers for hawkers and markets. It was also a public transport hub for tempos (minibuses) but this stand has been relocated, along with the lucrative crowds of commuters. Many hawkers relied on trade from both sides of the road, including customers from garment factories. As a result of the construction work, these workers can no longer across the road, which has resulted in the loss of customers.

One hawker named Motaleb who sells garments on the pavement around this junction said

'Since the construction of the flyover has started, my business has fallen because of the congestion. I think I will have to find another place because after the flyover being completed the police may evict us from this place.' (Khandoker 2003).

Shopkeepers in the local bazaar, Kanchabazaar, also face difficulties as a result of the traffic jams dissuading people from shopping. Rafique said,

'We just sit idly all day now compared with before the construction. We are just surviving and waiting for better days when the construction is completed.' (Khandoker 2003). Many of the poor in Dhaka live 'hand to mouth', i.e. they spend most or all of what they earn each day just to survive. Although the disruption around this junction is relatively short term (around 5 years), just a few days of lost income can be critical to the poor.

## **Financial impact**

It has been possible to build a basic picture of how some stakeholders have been impacted financially, with data collected on incomes before and after the rickshaw ban. Table 3 summarises income data for a number of the stakeholders in both areas. Figures given are averages.

Table 3. Income data

Stakeholder	Average income prior to DUTP	Average income after DUTP
Mirpur Road		
Rickshaw driver	Tk 200	Tk 120
Cycle cart driver	Tk 130	Tk 70
Hawker	Tk 200	Tk 100
Shopkeepers	Tk 325	Tk 250
Mohakhali Junction		
Hawkers	Tk 200	Tk 100
Shopkeepers	Tk 325	Tk 250

Exchange rate at time of writing: US\$1: Tk 60

#### What do stakeholders want?

Understanding exactly what the poor think and want is important. The poor, in this context rickshaw drivers and hawkers, understand the problems they face better than anyone. Even if they do not see the 'big picture' as politicians or urban developers, they do understand their own needs and can see how some of them could be met. Most of all, the poor want opportunities to develop alternative livelihoods.

## Rickshaw and cycle cart drivers

Most rickshaw and cycle cart drivers said they did not wish to continue in this profession long-term because it is such difficult work. Many have clear livelihood strategies. Many aspired to getting training for driving baby taxis, taxis and buses, and many wanted to become hawkers. Lack of access to credit is a barrier to this because without cash it is impossible for them to invest in new businesses or training. Many would like the opportunity to borrow from the government or NGOs, but because of the mobility of the urban population - particularly the informal sector -few institutions are comfortable with lending to them.

Training, in actual cost as well as opportunity-cost of time, is expensive. One rickshaw driver said

'Iam planning to spend many years of savings to enable one of my sons to become a rickshaw driver' (Yeasmin 2003). Others said they wanted the government to provide free driving training. But at the same time, they realise there are

insufficient driving jobs in Dhaka to replace all those which could be lost by rickshaw drivers.

#### Hawkers

Despite many rickshaw drivers wishing to become hawkers, the hawkers themselves do not see their job as easy or secure. Most of all, they wish to be made legitimate and issued with licences to sell goods in particular areas. This, they hope, would lend them some protection from the authorities which exploit them and abuse at present.

## Scale of impact

Quantifying the number of stakeholders affected by this project was not possible within the scope of this research. The scattered and mobile nature of many of the stakeholders meant that it would have been difficult to elicit meaningful data without a larger research team looking at the situation before, during and after implementation of interventions. They're already exists little data (much less accurate quantitative data) relating to these informal groups.

## Summary of key findings

It is clear that the DUTP has bought about improvements in the flow of traffic along the main road, but that the benefits of this are felt mainly by male bus users and car owners. Rickshaw drivers, hawkers, shopkeepers and female road users have faced many difficulties directly resulting from the legislation. Broadly, it can be said that generally the wealthier have benefited, whilst the poorer have suffered. Of the wealthy, more men have benefited than women.

The two areas described in this paper are quite different in that the effects in Mohakhali relatively short term while those around Mirpur Road appear to be permanent. However, when living on the poverty line even short-term impacts on livelihoods can be very costly.

Many of the poor can see no easy solution to their problems of shortage of jobs, lack of skills, shortage of cash and excessive competition, but at the least they feel they deserve to be acknowledged and considered. Most of all, the poor wish to be consulted and understood.

#### What could have been done better?

This research has identified a number of areas which, if given more emphasis, could have enabled planners to understand and mitigate negative impacts on poor stakeholders. These include:

• A more careful examination and analysis of impacts of the project on poor stakeholders. A social impact analysis (SIA) was undertaken for this project which considered various stakeholders including rickshaw drivers. The report was not made available to researchers, but was said to have identified no negative impacts on poor stakeholders resulting from the transport project. The research findings described in this paper suggest a very different situation, namely that the livelihoods of many poor people have suffered greatly as a result of the

- project. Was this SIA sufficiently thorough?
- Rapid rehabilitation for those negatively affected. The
  relocation and rehabilitation element of the project should
  have responded quickly to the livelihoods lost. Because
  many of the poor live hand to mouth, many are unable
  to sustain reduced incomes and require immediate assistance.
- Consideration/provision of alternative livelihoods for those affected. Provision of training and loans could also enable the poor to make transitions to new livelihoods.

## Recommendations for urban planners

The key message emerging from this study in Dhaka is that poor urban service providers need to be considered carefully by those who both understand the 'big picture' and resources available, and who are in a position to actually make changes and pro-poor decisions.

The following comprise to key recommendations drawn from the Dhaka study which could help ensure the poor are better recognised in other urban development projects.

- It is vital that stakeholders are understood properly before the planning stage of any urban development initiative. Is the social impact assessment process being undertaken carefully and taken seriously?
- Ensure there is a robust and accountable mechanism for responding to SIAs. It is not enough just to identify negative impacts on stakeholders, something has to be done about them.
- Before launching any urban development project, policymakers and project planners should carefully consider the possibility of negative impacts on poor stakeholders and take steps where possible to either mitigate these, or develop means of compensating for them. What alternative livelihoods can be created? What are the needs of those who have lost their livelihoods?
- Encourage participation of stakeholders at all stages to determine what they think, what they want and how they think they will be affected and could be helped.
- Consider the root of the problem. For example, do the problems (and solutions) lie in rural areas, and are any urban-based solutions really possible or sustainable?
- Acknowledge that urban infrastructure and services development will always impact the informal sector, and that both decision makers and entrepreneurs will often have to accept middle ground.
- Advocate at all levels the rights and needs of informalsector service providers, and shed light on the problems they face in urban development (Rouse 2004).

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